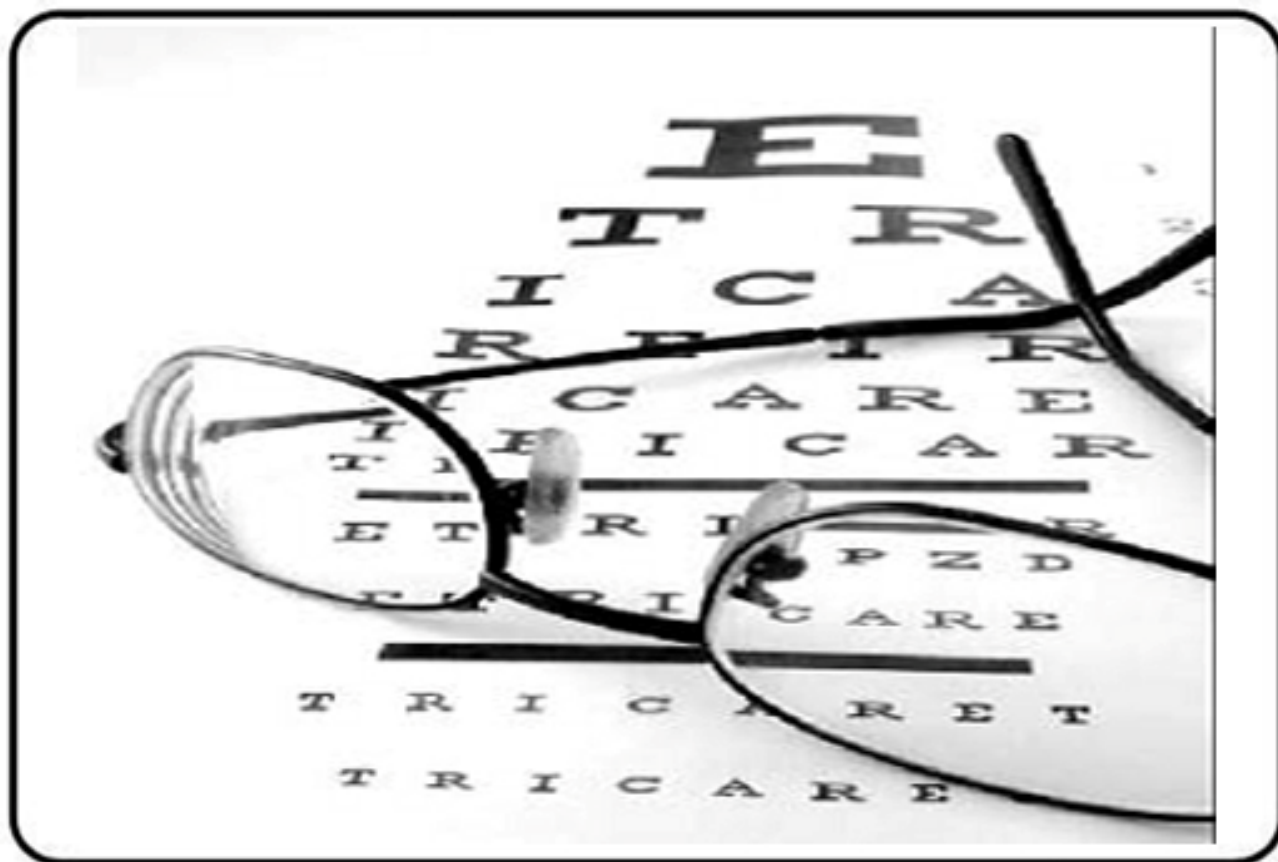


Clinical Examination of Ophthalmology

NOTES OF MEDADTEAM



Contents:

**lessons of
DR. Yasser seliman**

2010

**Only
2 L.E**



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NMT 12

Surgeon

- Don't fill it

Student

- Write your name and your number.

Diagnosis

- Last part to be filled, look below

Results, Date of Admission, Date of discharge

- Don't fill it.

History

- Fill the following only and write in short with no details, in Arabic words

الاسم: اسمك ايه؟
السن: عندك كام سنة، الولد عنده كام سنة؟
الصناعة: بتشتغل ايه؟
الاقامة: ساكن فين شبرا مثلا؟

Complaint of patient

شكوى المريض

الي انت شايفه مش الي العيان بيقلوا لك

- ⇒ 1st part to be written, even before history and present.
- ⇒ It depends on your EXAMINATION BY TORCH rather than patient's words.
- ⇒ SCHEME

- Put your torch in patient's eye.
- If you find:
 - a) Opacity in lens or cornea (leucoma\nebula\immature cataract\mature cataract\complicated cataract), SO the complaint is '*painless progressive diminution of vision.*'
 - b) ptosis of eye lid, so the complaint is '*Drooping of upper eye lid.*'
 - c) Squint of eye i.e. corneal light reflex is not in center, so the complaint is '*Squinting of eye*' (N.B. squint is NOT a medical term)
- Ask the patient about Duration of complaint.
 - a) In progressive painless diminution of vision
 - b) In Drooping of eye lid.
 - c) In squinting of the eye.

عينك ضعيفة من امتي؟
جفناك نازل من امتي؟
الحول ده اتولدت به و لا ايه؟

⇒ HOW TO COMMENT on complaint of patient?

☒ You must fulfill 3 items:

- The main complaint body: which it's possibilities are:
Painless progressive diminution of vision \ Drooping of upper eye lid \ Squinting of the eye .
- Side: if the complaint is present in the Rt. eye or Lt. eye or both eyes.
- Duration:

☒ Examples:

Complaint of patient: Painless progressive diminution of vision in the Rt eye since one year , in the Lt. eye since 3 years.

Complaint of patient: Drooping of the Rt. upper lid since birth.

History past & present

التاريخ الماضي و الحاضر للمريض

Items to common on & Scheme:

- Present History: No need to ask the patient
 - Onset: most ocular diseases are insidious in onset.
 - Course: most diseases are progressive in course.
- Past History: You should ask the patient.
 - Diabetes: عندك سكر؟
 - Hypertension: عندك ضغط؟
 - History of trauma: اتخبطت في عينك قبل كده ؟ أنه عين ؟ من أمتي ؟
 - Ocular operations: عملت عمليات في عينك قبل كده ؟ أنه عين ؟ من أمتي ؟
 - Ocular drugs: Not very important item (Not specific)

How to comment on History past & present?

- All items must be commented on whether +ve or -ve
Ex.: patient is diabetic, not hypertensive, no history of trauma, no ocular operations.
- Comment on ocular operations & history of trauma as in complaint i.e. in which eye (Rt. or Lt. or both) , duration (..... ago)
Ex.: patient is not diabetic, not hypertensive, no ocular operations, history of blunt trauma to the right eye one year ago.
- Do Not use medical terms on comment on operations.-
Do Not, for example, say "cataract extraction, glaucoma surgery, vitrectomy"
Ex.: history of intraocular operation in Rt. eye 6 months ago.

Present condition:

الحالة الحاضرة

External apperance:

الحالة الظاهرة

LID:

Scheme:

- Examine the Rt. eye lid for Ptosis:



If the upper eye lid is covering more than 1/6 of cornea, so write (Ptosis)

b) Look for other diseases in the lid as **Ectropion, Entropion, Rubbing lashes, Trichiasis, Dermatochalasis.**

- If you find one or more of these diseases, write it.

c) Examine the Lt. upper eye lid in the same manner.

How to comment on the lid?

- If you find NOTHING of abnormalities (The Lid NORMAL), so write:

Eye lids الجفون : Normal, No Trichiasis



rubbing lashes



Trichiasis

- If you find Ptosis, so write:

Eye lids الجفون : Ptosis

- If you find other diseases, write it:

Eye lids الجفون : Ptosis\Ectropion\Entropion\Rubbing lashes\Trichiasis\ Dermatochalasis

Lacrimal apparatus:

How to comment on lacrimal apparatus?

Normal

اكتبها قبل ما تشوف العين , كل الحالات

Lacrimal apparatus الجهاز الدمعي: Gland not felt, -ve regurge

Conjunctiva:

Scheme:

a) Examine the Rt. conjunctiva:

- Look for **Pterygium** or **Pinguecula**.
- If you find **filtering bleb**, ask him to make sure, then write it
- If you find Nothing, so write **T3 or T4**.

b) Examine the Lt. conjunctiva in the same manner.

How to comment on the conjunctiva ?

- You must the following even if you find abnormality :
"T3", "T4", "T3 or T4" or Ts

اكتبها قبل ما تشوف العين

- If you find NOTHING of abnormalities , so write :

Conj. الملتهمة : T3 \ T4 \ T3 or T4 \ T3

- If find abnormality so write :

Conj. الملتهمة : \ T4 \ T3 or T4 \ Ts & filtering bleb \ Pterygim \ Pinguecula



Pterygium



Pingecula

عملت عملية مياه زرق و لا

Sclera:

Scheme:

- Examine the RT sclera :
Look for **scar of previous operation** i.e. if the patient had cataract operation, glaucoma operation, iridectomy operation, retinal detachment operation
- Examine the Lt sclera in the manner

How to comment on sclera?

- If find nothing :

Sclerotic: **الملتحمة** Normal

- If you find a scar of previous operation,

Sclerotic **الملتحمة**: scar of a previous operation

Cornea:

Scheme:

- Examine the Rt. cornea.
- If you find corneal opacity :
⇒ if the corneal opacity is faint , so it's **nebula**
In nebula you should specify:

- Site :

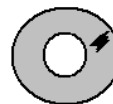
- If the nebula is opposite pupil , so it is **central**.



- If the nebula is at the edge of the pupil, so it is **paracentral**.



- If the nebula is near limbus, so it's **peripheral**.



- If the nebula is involving two places ,
(opposite pupil & at the edge of pupil), so it's **central & paracentral**.



(at the edge of pupil & near limbus) , so it's **paracentral & peripheral**



- If the nebula is involving THE THREE areas , so it's Diffuse

(N.B. Diffuse does NOT mean that cornea is completely opaque)

⇒ if the corneal opacity is dense , so it is **leucoma**

In leucoma, you should specify the following IN ORDER:

1) Site:

i. If the leucoma is opposite pupil , so it is **central**

ii. If the leucoma is at the edge of the pupil , so it is **paracentral**.

iii. If the leucoma is near limbus , so it's **peripheral**.

iv. if the leucoma is involving two places (opposite pupil & at the edge of pupil) , so it's **central & paracentral**.

(at the edge of pupil & near limbus) , so it's **paracentral & peripheral**.

v. if the leucoma is involving THE THREE areas, so it's Diffuse (N.B. Diffuse does NOT mean that cornea is completely opaque)

2) Vascularized or not :

- If you see CLEAR blood vessels, so it's **vascularized**.
- If you see NO blood vessels, so it's **non-vascularized**.
- If you are in doubt, so it's mostly **non-vascularized**.

3) Type : **adherent or non adherent**

- If the pupil is rounded, so it's **non adherent**.
- If the pupil is peaked toward the leucoma, so it's **adherent**.
- If the pupil is can't be seen, DO NOT comment.

c) Ask the patient to look down :

- If you find Manson's sign so it's **Keratoconus**.
- If you find nothing, so it's **normal**

d) Examine the left eye in the same manner.

How to comment on the cornea?

- You must write "**Pannus siccus**", even if you find abnormality or
- If the patient is OLD (> 50), you should write "**Arcus senilis**", even if find abnormalities or

اكتبها قبل ما تشوف العين

اكتبها قبل ما تشوف العين

- In leucoma, you should comment on the following order:
Site, Vascularization , Type
e.g. paracentral , vascularized leucoma adherent .
- If you find nothing of the abnormalities (Cornea is NORMAL) , so write :

Corneyة القرنية: central clear, pannus siccus (+/-arcus senilis)

* If you find opacity, write "opacity" in cornea , write Details in Diagnosis

- If you find nebula so write :

Corneyة القرنية: corneal opacity

Diagnosis:

Central \ Paracentral \ Peripheral \ Central & Paracentral \ Paracentral
& peripheral \ diffuse nebula

- If you find leucoma, so write:

Corneyة القرنية: corneal opacity

Diagnosis :

Central \ Paracentral \ Peripheral \ Central & paracentral \ paracentral
& peripheral \ Diffuse , Vascularized \ Non vascularized , Leucoma
adherent \ Leucoma non adherent .

Anterior Chamber:

Scheme:

- Depth depends on your diagnosis (DO NOT depend on Examination)
- If your diagnosis:
*Aphakia, Pseudophakia or Keratoconus, so it is Deep.
*Leucoma adherent, so it's of irregular depth.
- * Only other diagnosis rather than above e.g. immature cataract, so it's of normal depth.

How to comment on Ant. chamber:

- You must write "NO abnormal contents" even if you find abnormality.
اكتبها قبل ما تشوف العيان
- If Normal, so write:

Ant. Chamber الخزانة الأمامية: Normal depth, NO abnormal contents

- If your diagnosis is Aphakia, Pseudophakia, Keratoconus, So write:



Ant. Chamber الخزانة الأمامية: Deep, No abnormal contents

- If your diagnosis is leucoma adherent, so write:

Ant. Chamber الخزانة الأمامية: irregular Depth, No abnormal contents

IRIS:Scheme:

- a) Examine the Rt iris.
 b) Look for iridectomy. If you find iridectomy you must specify it's type:

-  so it is **peripheral iridectomy**.
-  so it is **sector iridectomy**.

(pupil is irregular, removed till limbus)

- c) If the pupil is irregular and there is iris between limbus and pupil
 So it is **Synechia**. If you find synechia you must specify it's type:



- If there is leucoma AND pupil is pear shaped with it's peak touching leucoma
 So it is **Anterior synechia**.



- If the cornea is clear



OR there is just Nebula



OR Peak of pear shaped pupil is away from cornea
 So it is **posterior synechia**.



N.B. The ONLY iris which doesn't contain synechia is eye with Rounded regular pupil.

- d) If your diagnosis is Aphakia, so iris is **tremulous**.
 e) Examine the left eye in the same manner.

HOW to comment on iris:

- If Normal

Iris القزحية: Normal color and pattern

- If you find iridectomy, so write:

Iris القزحية : Peripheral iridectomy \ Sector iridectomy






- If you find synechia, so write:

Iris القزحية :Ant. synechia \ Post. synechia

PUPIL:

Scheme

Examine the Rt pupil, If it is:

-  , so it is Normal, **rounded regular reactive (RRR)**.
Or **rounded regular active (RRA)**
-  , and there is almost a disease in the lens i.e. cataract, so it is **rounded regular dilated** under the effect of mydriatic.
-  , and there is synechia, so it is **irregular irreactive pupil**.
-  , so it is **Drown up** as this patient had a cataract operation, the wound was opened and iris came out.
-  , and there is Post. synechia, so it is **irregular and drown up**.

HOW to comment on pupil:

- If it is normal, so Write: (you can use the abbreviations)

Pupil الحدقة : Rounded Regular Reactive. \ RRR.

- If it is abnormal so, write:

Pupil الحدقة : rounded regular dilated \ irregular irreactive \ Drown up \ irregular and drown up.

Lens

Scheme

- Look at the color of the lens
- If the color of the pupil is black, so:
 - ⇒ Ask the patient about history of cataract operation. عملت عملية مياه بيضاء ؟
 - If No cataract operation, so it is **normal lens**.
 - If there was cataract operation, proceed to **next step**.
 - ⇒ Ask the patient about IOC implantation after cataract operation

عملت عملية مياه بيضاء و زرعوا لك عدسة و لا لأ؟

And look for purkinje sanson image.

- If there is IOL implantation with 2 purkinje sanson image (one with and one against)

عملت عملية مياه بيضاء و زرعوا لي عدسة

So it is **Pseudophakia (IOL)**. Specify if it is ant or post.

- If there is NO IOL implantation with one purkinje sanson image

عملت عملية مياه بيضاء لكن ما زرعواش عدسة

So it is **Aphakia**.

c) If the color of the lens is brown or grey so there is corneal opacity:

⇒ Ask the patient about history of cataract operation

عملت عملية مياه بيضاء؟

- If there was cataract operation so **After cataract**.
- If NO cataract operation so it is **CATARACT**.

Scheme for cataract:

The lens is grey or brown with no history of cataract operations

- Ask the patient / his mother about onset of cataract: الضعف \ الميا البيضاء عنده من امتي؟

a) If dating since birth, so it is **congenital cataract**

b) If NOT dating since birth, proceed to **next step**

- Ask the patient about history of trauma:

اتخبطت في عينيك؟

a) If history of trauma exists and this trauma coincides with onset of cataract or diminution of vision, so it is **traumatic cataract**

b) If NO history of trauma, proceed to **next step**

- Ask the patient about his age:

حضرتك قلتي عندك كام سنة؟

a) If < 45, so it is **complicated cataract**

b) If > 45, proceed to **next step**

- Ask the patient about diabetes or ocular operations: عندك سكر ؟ عملت عملية في عينيك؟

a) If he had a previous ocular operation, so it is **complicated cataract**

b) If he is NOT diabetic with NO history of ocular operation, so it is **senile cataract** by exclusion.

You should specify the site of senile cataract, proceed to the **next step**

c) If he is diabetic, you better say **senile cataract in diabetic patient**,

you should specify the site of senile cataract, proceed to the **next step**

- Look at the color of the opacity,

a) If it is brown in color, so it is **nuclear senile cataract**

b) If it is grey in color, so it is **cortical senile cataract**

you should specify its maturity, proceed **next step**

- Measure vision of the patient,

a) If he can count finger, so it is **immature cortical senile cataract**

b) If he only sees hand movement, proceed to **next step**

- Look again at the opacity,
 - a) If it is dense, so it is **mature cortical complicated cataract**
 - b) If it is faint or iris shadow is large, so it is NOT senile cataract, it is **COMPLICATED cataract** as opacity doesn't coincide with the degree of senile cataract
- If the patient had bilateral opacity with no history of general or local disease, ask about onset of disease and age of patient,
 - a) If dating since birth, so it is **developmental (congenital) cataract**
 - b) If not dating since birth and patient is 30<-<45, so patient is **PRESENILE cataract**

How to comment on Lens:

- If normal,

Lens العدسة البلورية : clear and in place:

- If lens opacity,

Lens العدسة البلورية : opacity

Diagnosis RT:

after cataract / congenital cataract / complicated cataract / traumatic cataract

- If senile cataract, you should comment on site and maturity,

Lens: opacity

Diagnosis RT:

immature cortical senile cataract / mature cortical senile cataract /
nuclear cataract

- If aphakia:

Lens العدسة البلورية : aphakia

Diagnosis Rt: aphakia

- If Pseudophakia

Lens العدسة البلورية : Pseudophakia. Ant ch. IOL \ post. ch. IOL

Diagnosis Rt: Pseudophakia. IOL

How to diagnose?

- Posterior dislocation?
 - * It is similar to aphakia (one purkinje sanson image) BUT
 - * No history of operation + history of trauma
- Subluxation?
 - * It is similar to cataract (cataractous lens) BUT
 - * Iris tremulous يتهاز لما يحرك عينه أو راسه iris

Ocular Motility:

How to comment on ocular motility...?

- أكتبها قبل ما تشوف العين

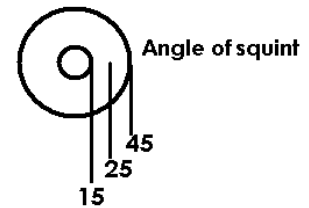
Ocular movements حركات العين: No limitation

Extra ocular muscles:

Scheme for squint

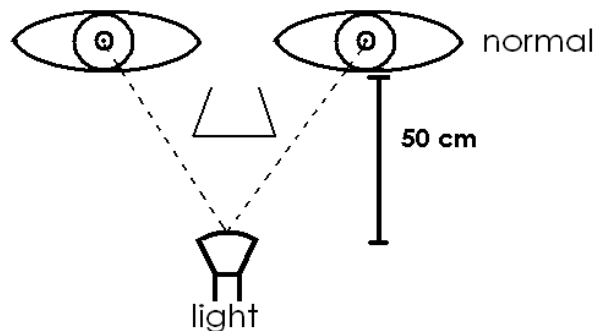
Put the torch in front of BOTH eyes: at 50 cm & ask the Patient to fix on torch & observe reflex of light on surface of cornea of BOTH eyes [corneal light reflex]

- Angle of squint



- Squint or NOT

* If BOTH light reflexes are: on the centre of BOTH corneas, so there is **NO squint**



* If light reflex of one cornea is central while the light reflex of other cornea is NOT central, so there is **SQUINT**

- Divergent or convergent:

* If the eye is deviating outward [corneal light reflex is medial to centre of cornea], so squint is **divergent**.



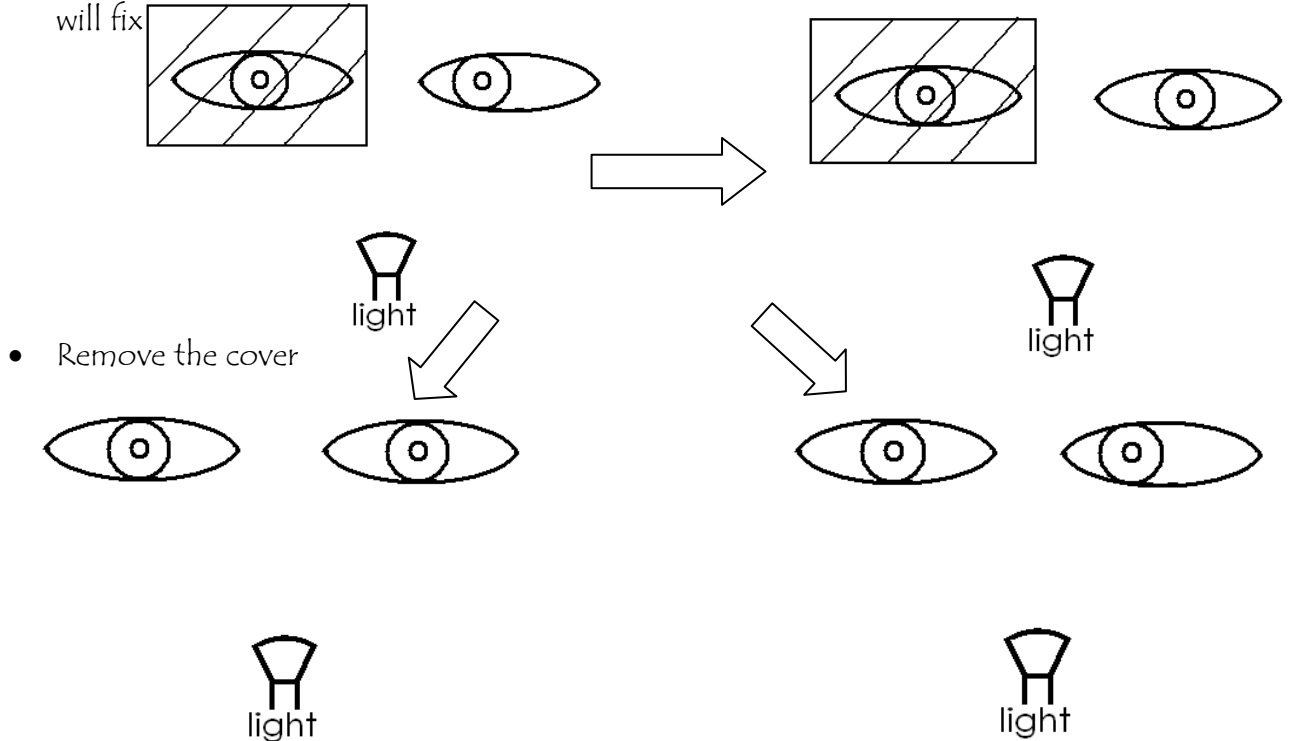
- If the eye is deviating inward [corneal light reflex is lateral to centre of cornea], so Squint is **convergent**

2) Test ocular motility in Rt eye then in Lt eye to differentiate bet **concomitant** & paralytic squint

- Almost all cases are **concomitant** squint, there is NO limitation of ocular movement.

3) Do cover uncover test:

- Put the torch in front of patient
- Ask the patient to fix on torch
- Cover the fixing eye [the eye in which corneal light reflex is central], so the other squinting eye will fix



Results:

- If the new position is maintained, so squint is **alternating**
- If the original position returns, so squint is unilateral & you should specify if it is **Rt or Lt** [NEVER say unilateral]

How to comment on extra ocular muscles ...?

- If there is No squint (normal), so write

Extra ocular muscles العضلات الظاهرة : Normal muscle balance

- Items to comment on in squint IN ORDER:
 1. Alternating or Rt or Lt
 2. Concomitant (or paralytic)
 3. Divergent or convergent
 4. Squint
 5. Angle of squint
- If there is squint, so write:

Extraocular muscles الحركات الظاهرة: concomitant squint
Diagnosis Rt: Rt concomitant divergent squint 15°

Vision:

Scheme:

- 1) Ask the patient to cover his Lt eye & ask him to count your fingers at a distance of 20 cm, repeat more than one time

كام صباع دول؟ طب كام دول؟

- If the patient can count fingers at a distance of 20 cm, & ask him to count fingers at a more away distance till your hand reaches one meter from patient
- If the patient can count fingers till one meter, so write CF >1m (need visual chart)
- If the patient can not count till one meter, make rough estimation of distance that he can count finger [CF 20 cm <...<100 cm]
- If the patient can not count fingers at a distance of 20 cm, move your hand & ask him to tell you whether there is something moving or not & to tell you when it stops
في حاجه بتتحرك قصاد عينك؟ قوللي لما تقف.
- If the patient can see movement of hand, so his vision is hand movement (HM)
- If the patient can not see movement of hand, put torch in front of his eye & ask him whether he see light or not

شايف النور ولا مش شايفه...؟

- If the patient sees light, so his vision is PL
- If the patient doesn't see light, so his vision is NO PL

- 2) Ask the patient to cover his Rt eye & examine vision of Lt eye in the same manner

How to comment on vision...?

- If normal, so write:

Vision النظر counting finger (CF) > 1m (needs visual chart)

- If abnormal:

Vision النظر CF < 60 cm / HM / PL / NO PL

Tension:

How to comment on tension...?

- If the eye is enucleated or atrophic, don't comment on tension
- In all cases [except enucleated or atrophic eyes], tension by digital method is normal

Tension التوتر : Tn (digitally)

Fundus:

Don't fill it

Vitreous:

Don't fill it

Field of vision:

Don't fill it

Projection:When to comment on projection?

- When vision is:
 1. CF 20 – 100 cm (<100 cm)
 2. HM
 3. PL

Scheme:

- 1) Ask the patient to cover his Lt eye & look forward by his Rt eye
- 2) Ask him to point at direction of light in different directions
 - شاورلى على اتجاه الضوء
 - If the patient knows ALL direction, so **projection is good**
 - If the patient makes mistake even in only one direction, so **projection is bad** & you should specify this direction
- 3) Ask the patient to cover his RT eye & examine his Lt eye in the same manner

How to comment on projection...?

- If projection is good in ALL directions, so write:

Projection : good projection
مرأى الضوء

- If projection is bad in one direction, you should specify in which direction projection was bad

Projection : bad projection of light downward
مرأى الضوء

Diagnosis:

- It is the last part to be written by you
- You must write diagnosis for BOTH eyes RIGHT & LEFT
- You should write the diagnosis even if one eye is normal without abnormalities. You can write "T3" but NEVER write normal
- What should write in the diagnosis...?
 - 1) Diagnosis of complaint:
 - If the complaint is "painless progressive diminution of vision, so diagnosis include leucoma or cataract"
 - If the complaint is "drooping of eye lid", so diagnosis include Ptosis

- If the complaint is "squinting of eye", so diagnosis include for example Rt concomitant divergent squint 15°
- 2) Positive signs needing treatment:
Even if has nothing to do with complaint or Even the patient doesn't complain of them so they should be written in present condition & diagnosis
Examples of signs needing ttt:
Pterygium – Rubbing lashes – T3
Examples of signs not needing ttt (won't be written) :
Iridectomy – Arcus senilis – Pannus siccus – T4

قبل ما تشوف العين

- Student
- Diagnosis: * Rt T3
* Lt T3
- Lachrymal apparatus الجهاز الدمعي: gland not felt, -ve regurge
- Conj. الملتحمة: "T3 or T4" / "T3" / "T4" / "T5"
- Cornea. القرنيه: pannus siccus, arcus senilis (لو أكثر من 50 سنه)
- Ant.ch. الخزانه المقدمه: NO abnormal contents
- Ocular movements حركات العين: no limitations

If complaint is ..., so present condition, diagnosis should be:

- Complaint: painless progressive diminution of vision
Lens: opacity
Diagnosis: immature cortical senile cataract / mature cortical senile cataract / nuclear senile cataract
- Complaint: painless progressive diminution of vision
Cornea: opacity
Diagnosis: central & paracentral nebula / Diffuse Vascularised leucoma adherent
- Complaint: squinting of eye
Extraocular muscles: concomitant squint
Diagnosis: Lt concomitant convergent squint 15°
- Complaint: Drooping of upper eyelid
Lid: Ptosis
Diagnosis: Ptosis

For oral exam:

- What does "Normal" mean in Eyelid...?
It means Normal position, Normal lid margin
- What do "gland not felt" & "-ve regurge" mean in lacrimal...?
They mean "No tumour" . "No obstruction" respectively
- How did you know that conj. Is T3 although you hadn't evert lid...?
Because of pannus siccus in cornea, so T3 must be present
- * What are the abnormal contents that may be present in ant. Ch.?
 - *Caused by lens:
 - 1) Ant. Dislocation
 - 2) Intraocular lens (Ant. Ch. IOL)
 - 3) Lens matter (fibres)
 - *Caused by **Indo cyclitis**:
 - 1) Flare
 - 2) Hypopyan
 - 3) Hypherna
 - ***Miscellaneous**:
 - 1) Vitreous
 - 2) FB.
- What does "clean & in place" mean in lens...?
It means No cataract. No ectopia lentis.
- What is the difference bet. Projection & perception of light...?
Projection: it is retinal function test of periphery
Perception: it is visual acuity

Other Notes

- ✚ ENT definitions
- ✚ Ophthalmology definitions
- ✚ Ophthalmology sheet
- ✚ Oral q of ophthalmology
- ✚ 4th year exams
- ✚ Forensic notes
- ✚ General toxicology
- ✚ Specific toxicology